IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): A gain control method for comparing output power of a variable gain amplifier with predetermined target power and controlling the gain of the variable gain amplifier in accordance with a comparison result, wherein plural gain control cycles can be executed while changing the control gain difference thereof.

Claim 2 (Original): The gain control method according to claim 1, wherein the control gain difference at each gain control cycle is successively reduced in connection with the repetition of the gain control cycle.

Claim 3 (Original): The gain control method according to claim 1, wherein the control gain difference at each gain control cycle is successively reduced by half in connection with the repetition of the gain control cycle.

Claim 4 (Original): The gain control method according to claim 3, wherein each gain control cycle includes a gain difference calculating step of calculating the gain difference between the gain set in the variable gain amplifier and a gain which is to be next set, and a gain setting step of setting the gain of the variable gain amplifier in accordance with the calculation result of the gain difference calculating step.

Claim 5 (Original): The gain control method according to claim 1, further comprising a recovery operation of retrying the gain control when the gain control falls into a state that the gain to the variable gain amplifier cannot be converged into a predetermined control width.

Claim 6 (Original): The gain control method according to claim 1, wherein the number of the gain control cycles can be set.

Claim 7 (Currently Amended): The gain control method according to ~~any one of claims 1 to 6~~ claim 1, wherein the control gain difference is determined as the difference between a gain which has been already set in the variable gain amplifier and a gain which is newly set.

Claim 8 (Currently Amended): The gain control method according to ~~any one of claims 1 to 7~~ claim 1, wherein a gain when the output of the variable gain amplifier reaches a predetermined target value in the previous operation of the variable gain amplifier is used as a gain which is initially set in the variable gain amplifier.

Claim 9 (Original): A gain control method for comparing output power of a variable gain amplifier with predetermined target power and controlling the gain of the variable gain amplifier in accordance with a comparison result, comprising:

a first gain control operation of executing plural gain control cycles while varying the control gain difference thereof; and

a second gain control operation of executing plural gain control cycles while the control gain difference thereof is fixed.

Claim 10 (Original): The gain control method according to claim 9, wherein each gain control cycle of the first gain control operation is executed while varying each gain control difference thereof.

Claim 11 (Original): The gain control method according to claim 9, wherein the control gain difference at each gain control cycle in the first gain control operation is successively reduced in connection with the repetition of the gain control cycle.

Claim 12 (Original): The gain control method according to claim 9, wherein the control gain difference at each gain control cycle in the first gain control step is successively reduced by half in connection with the repetition of the gain control cycle.

Claim 13 (Original): The gain control method according to claim 9, wherein the gain control cycle of the first gain control operation comprises a gain difference calculating step of calculating the gain difference between the gain set in the variable gain amplifier and a gain to be next set, and a gain setting step of setting the gain of the variable gain amplifier in accordance with the calculation result of the gain difference calculating step.

Claim 14 (Original): The gain control method according to claim 9, further comprises a recovery operation of retrying the gain control when the gain control falls into a state that the gain to the variable gain amplifier cannot be converged into a predetermined control width in the first gain control operation.

Claim 15 (Original): The gain control method according to claim 9, wherein the number of the gain control cycles in the first gain control operation can be set.

Claim 16 (Original): The gain control method according to claim 9, wherein after the first gain control operation is finished, the second gain control operation is carried out.

Claim 17 (Original): The gain control method according to claim 9, wherein during the period when the second gain control operation is carried out, the second gain control operation is switched to the first gain control operation on the basis of a predetermined condition.

Claim 18 (Original): The gain control method according to claim 17, wherein the second gain control operation includes a judging step of judging on the basis of detected power whether the first gain control operation should be executed or not.

Claim 19 (Currently Amended): The gain control method according to ~~any one of claims 9 to 18~~ claim 9, wherein the control gain difference at each gain control cycle in the first gain control operation is determined as the difference between a gain which has been already set in the variable gain amplifier and a gain which is newly set.

Claim 20 (Currently Amended): The gain control method according to ~~any one of claims 9 to 19~~ claim 9, wherein in the first gain control operation, a gain when the output of the variable gain amplifier reaches a predetermined target value in the previous operation of the gain amplifier is used as the gain which is initially set in the variable gain amplifier.

Claim 21 (Original): A gain control device for comparing output power of a variable gain amplifier with predetermined target power and controlling the gain of the variable gain amplifier in accordance with a comparison result, wherein plural gain control cycles can be executed while changing the control gain difference thereof.

Claim 22 (Original): The gain control device according to claim 21, wherein the control gain difference at each gain control cycle is successively reduced in connection with the repetition of the gain control cycle.

Claim 23 (Original): The gain control device according to claim 21, wherein the control gain difference at each gain control cycle is successively reduced by half in connection with the repetition of the gain control cycle.

Claim 24 (Original): The gain control device according to claim 23, wherein the gain control cycle is set to carry out a gain difference calculating step of calculating the gain difference between the gain set in the variable gain amplifier and a gain which is to be next set, and a gain setting step of setting the gain of the variable gain amplifier in accordance with the calculation result of the gain difference calculating step.

Claim 25 (Original): The gain control device according to claim 21, wherein the gain control contains a recovery operation of retrying the gain control when the gain control falls into a state that the gain to the variable gain amplifier cannot be converged into a predetermined control width.

Claim 26 (Original): The gain control device according to claim 21, wherein the number of the gain control cycles can be set.

Claim 27 (Currently Amended): The gain control device according to ~~any one of claims 21 to 26~~ claim 21, wherein the control gain difference at each gain control cycle is

determined as the difference between a gain which has been already set in the variable gain amplifier and a gain which is newly set.

Claim 28 (Currently Amended): The gain control device according to ~~any one of claims 21 to 27~~ claim 21, wherein a gain when the output of the variable gain amplifier reaches a predetermined target value in the previous operation of the variable gain amplifier is used as a gain which is initially set in the variable gain amplifier.

Claim 29 (Original): A gain control device for comparing output power of a variable gain amplifier with predetermined target power and controlling the gain of the variable gain amplifier in accordance with a comparison result, characterized by being designed so as to carry out a first gain control operation of executing plural gain control cycles while varying the control gain difference thereof, and a second gain control operation of executing plural gain control cycles while the control gain difference is fixed.

Claim 30 (Original): The gain control device according to claim 29, wherein the gain control cycles of the first gain control operation are executed while varying each gain control difference thereof.

Claim 31 (Original): The gain control device according to claim 29, wherein the control gain difference at each gain control cycle in the first gain control operation is successively reduced in connection with the repetition of the gain control cycle.

Claim 32 (Original): The gain control device according to claim 29, wherein the control gain difference at each gain control cycle in the first gain control operation is successively reduced by half in connection with the repetition of the gain control cycle.

Claim 33 (Original): The gain control device according to claim 29, wherein the gain control cycle of the first gain control operation is set to carry out a gain difference calculating operation of calculating the gain difference between a gain set in the variable gain amplifier and a gain to be next set, and a gain setting operation of setting the gain of the variable gain amplifier in accordance with the calculation result of the gain difference calculating operation.

Claim 34 (Original): The gain control device according to claim 29, wherein the first gain control operation contains a recovery operation of retrying the gain control when the gain control falls into a state that the gain to the variable gain amplifier cannot be converged into a predetermined control width in the first gain control operation.

Claim 35 (Original): The gain control device according to claim 29, wherein the number of the gain control cycles in the first gain control operation can be set.

Claim 36 (Original): The gain control device according to claim 29, wherein after the first gain control operation is finished, the second gain control operation is carried out.

Claim 37 (Original): The gain control device according to claim 29, wherein during a period when the second gain control operation is carried out, the second gain control

operation is switched to the first gain control operation on the basis of a predetermined condition.

Claim 38 (Original): The gain control device according to claim 37, wherein the second gain control operation contains a judging step of judging on the basis of detected power whether the first gain control operation should be executed or not.

Claim 39 (Currently Amended): The gain control device according to ~~any one of claims 29 to 38~~ claim 29, wherein the control gain difference at each gain control cycle in the first gain control operation is determined as the difference between a gain which has been already set in the variable gain amplifier and a gain which is newly set.

Claim 40 (Currently Amended): The gain control device according to ~~any one of claims 29 to 39~~ claim 29, wherein in the first gain control operation, a gain when the output of the variable gain amplifier reaches a predetermined target value in the previous operation of the gain amplifier is used as the gain which is initially set in the variable gain amplifier.

Claim 41 (Currently Amended): A receiver having the gain control device according to ~~any one of claims 21 to 40~~ claim 29.

Claim 42 (Currently Amended): A cellular phone having the gain control device according to ~~any one of claims 21 to 40~~ claim 29.